

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: SPECTACLE POND	Lake Area (ha): 43.54
Town: ENFIELD	Maximum depth (m): 5.5
County: Grafton	Mean depth (m): 3.0
River Basin: Connecticut	Volume (m ³): 1313500
Latitude: 43°36'05" N	Relative depth: 0.7
Longitude: 72°01'58" W	Shore configuration: 1.80
Elevation (ft): 1183	Areal water load (m/yr): 4.36
Shore length (m): 4200	Flushing rate (yr ⁻¹): 1.40
Watershed area (ha): 327.1	P retention coeff.: 0.68
% watershed ponded: 0.0	Lake type: natural

BIOLOGICAL:

		15 February 1996	18 July 1995
DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 50%	CHRYSPHAEERELLA 50%
	#2	ASTERIONELLA 40%	CERATIUM 20%
	#3		DINOBRYON 15%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			4.03
DOM. ZOOPLANKTON (% TOTAL)	#1	POLYARTHRA 34%	KERATELLA 39%
	#2	CILIATE SPP. 31%	NAUPLIUS LARVA 36%
	#3		CYCLOPOID COPEPOD 9%
ROTIFERS/LITER		36	159
MICROCRUSTACEA/LITER		21	152
ZOOPLANKTON ABUNDANCE (#/L)		83	326
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			4.5
BOTTOM DISSOLVED OXYGEN (mg/L)		6.4	7.4
BACTERIA (E. coli, #/100 ml)	#1		8
	#2		54
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:

Lake: SPECTACLE POND

Town: ENFIELD

	15 February 1996		18 July 1995		
DEPTH (m)	1.0	2.5	1.5		3.0
pH (units)	6.2	6.3	7.0		7.0
A.N.C. (Alkalinity)	6.2	7.0	6.9		6.8
NITRATE NITROGEN	0.08	0.08	0.07		0.05
TOTAL KJELDAHL NITROGEN	0.30	0.30	0.19		0.30
TOTAL PHOSPHORUS	0.010	0.009	0.014		0.016
CONDUCTIVITY (μ mhos/cm)	40.7	40.2	36.1		35.4
APPARENT COLOR (cpu)	39	37	15		17
MAGNESIUM			0.67		
CALCIUM			3.6		
SODIUM			2.1		
POTASSIUM			< 0.40		
CHLORIDE	2	2	2		2
SULFATE			5		5
TN : TP	38	42	19		22
CALCITE SATURATION INDEX			2.9		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1995

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
0	2	3	1	6	Oligo.

COMMENTS:

1. This pond was previously surveyed and classified in 1982. It was oligotrophic in both years, but the macrophyte growth appeared more abundant in 1995.
2. Boat speed on the pond is limited to 10 mph.
3. Pond bottom appeared to be very rocky.

Spectacle Pond Enfield

Launch

5 foot depth contours

N

10

15

10

5

5

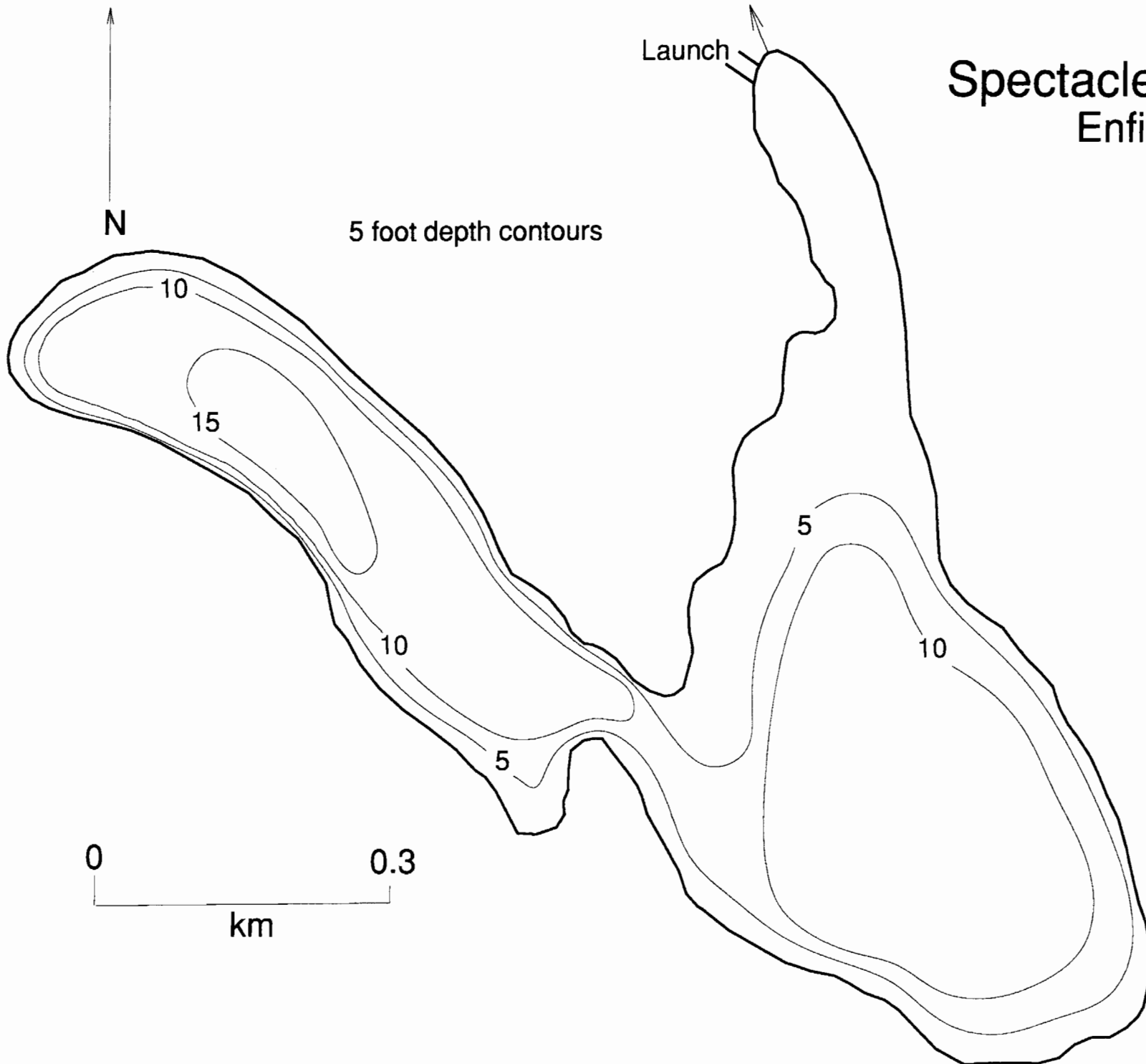
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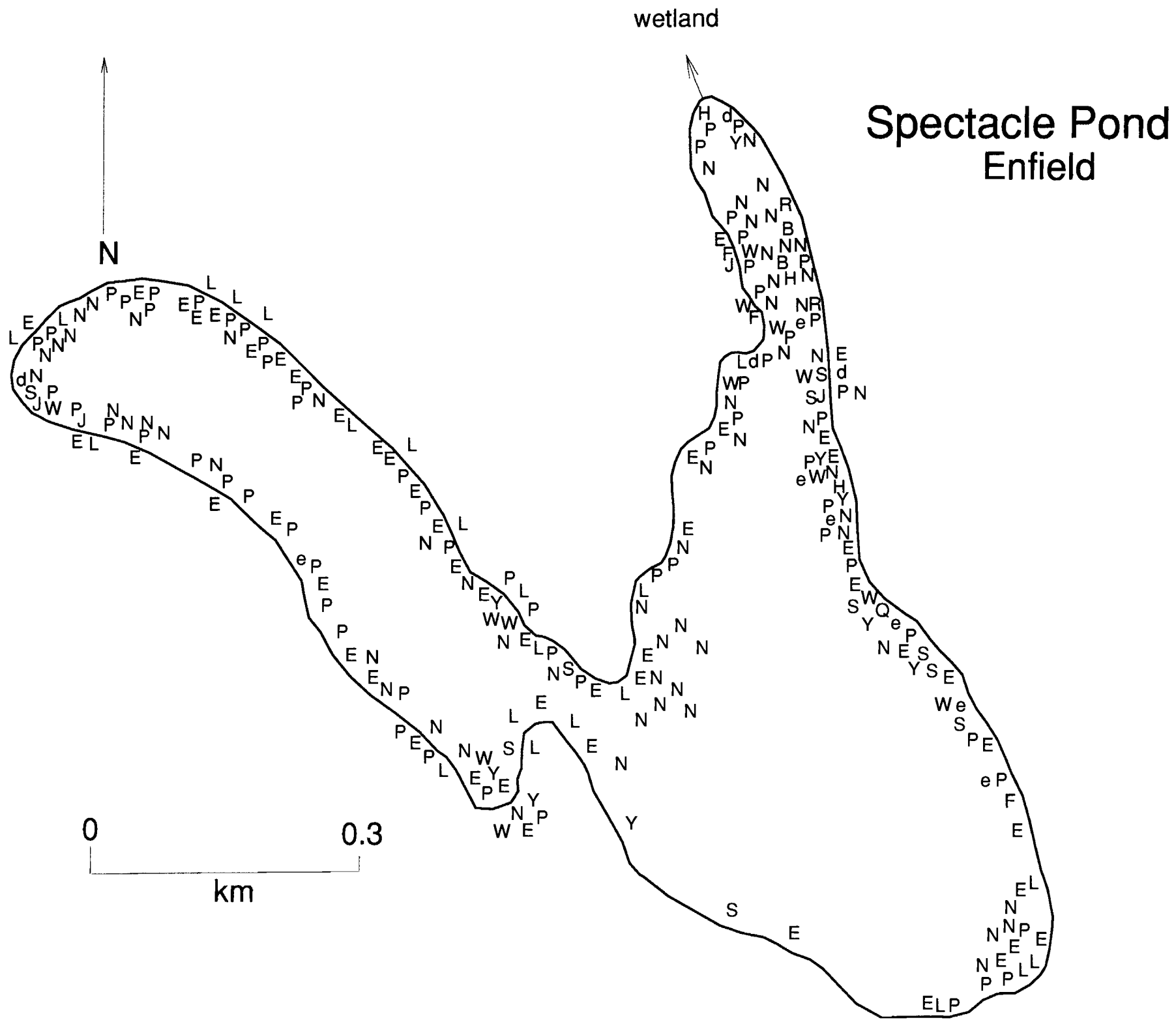
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km

111 - 250



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